



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GENx-1B70/P1
 UNIQUE ID NUMBER: 12GE152
 COMBUSTOR: TAPS
 ENGINE TYPE: TF

BYPASS RATIO: 8.8
 PRESSURE RATIO (π_{oo}): 43.5
 RATED THRUST (F_{oo}) (kN): 321.6

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | NO _x | SMOKE NUMBER |
|--|-----|------|-----------------|--------------|
| D _p /F _{oo} (g/kN) or SN | 0.9 | 25.3 | 43.1 | 9.8 |
| AS % OF ORIGINAL LIMIT | 4.7 | 21.4 | 33.9 | 57.0 |
| AS % OF CAEP/2 LIMIT (NO _x) | | | 42.4 | |
| AS % OF CAEP/4 LIMIT (NO _x) | | | 45.8 | |
| AS % OF CAEP/6 LIMIT (NO _x) | | | 50.1 | |
| AS % OF CAEP/8 LIMIT (NO _x) | | | 55.9 | |

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

| MODE | POWER SETTING (%F _{oo}) | TIME (minutes) | FUEL FLOW (kg/s) | EMISSIONS INDICES (g/kg) | | | SMOKE NUMBER |
|--|-----------------------------------|----------------|------------------|--------------------------|----------|-----------------|--------------|
| | | | | HC | CO | NO _x | |
| TAKE-OFF | 100 | 0.7 | 2.505 | 0.02 | 0.17 | 34.61 | 0.0 |
| CLIMB OUT | 85 | 2.2 | 2.051 | 0.02 | 0.24 | 19.30 | 0.0 |
| APPROACH | 30 | 4.0 | 0.664 | 0.06 | 2.42 | 9.73 | 5.8 |
| IDLE | 7 | 26.0 | 0.219 | 0.52 | 18.05 | 4.50 | 0.1 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 876 | 192 | 6623 | 11953 | - |
| NUMBER OF ENGINES | | | | 1 | 1 | 1 | 1 |
| NUMBER OF TESTS | | | | 3 | 3 | 3 | 3 |
| AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX) | | | | 0.6 | 20.6 | 37.2 | 7.6 |
| SIGMA (D _p /F _{oo} in g/kN, or SN) | | | | 0.0 | 0.4 | 0.3 | 2.1 |
| RANGE (D _p /F _{oo} in g/kN, or SN) | | | | 0.58-0.63 | 20.22-21 | 36.84-37.4 | 5.26-8.96 |

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT All POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT All POWER SETTINGS

ATMOSPHERIC CONDITIONS

| | |
|----------------------|-----------------|
| BAROMETER (kPa) | 97.4-98.6 |
| TEMPERATURE (K) | 280.5-299 |
| ABS HUMIDITY (kg/kg) | 0.00345-0.00716 |

FUEL

| | |
|----------|-------|
| SPEC | Jet A |
| H/C | 1.89 |
| AROM (%) | 15.3 |

MANUFACTURER: General Electric Company
 TEST ORGANIZATION: General Electric Company
 TEST LOCATION: PTO, Ohio
 TEST DATES: 29/09/2009-03/10/2009

NO_x REGULATION PARAGRAPH

| | |
|---|-------------------|
| | 2.3.2 c) (CAEP/4) |
| | 2.3.2 d) (CAEP/6) |
| x | 2.3.2 e) (CAEP/8) |

REMARKS

1. Ref. GE REPORT R2010AE595
2. Engine S/N 956-108/2
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)